UNITED STATES DISTRICT COURT DISTRICT OF MASSACHUSETTS

SINGULAR COMPUTING LLC,	Civil Action No. 1:19-cv-12551-FDS
Plaintiff,	
v.	Hon. F. Dennis Saylor IV
GOOGLE LLC,	
Defendant.	

PLAINTIFF SINGULAR LLC'S RESPONSE TO DEFENDANT GOOGLE LLC'S STATEMENT OF FACTS

Plaintiff, Singular Computing LLC ("Singular"), responds to the Statement of Facts of defendant, Google LLC ("Google"), as follows":

	Google's Statement of Fact	Singular's Response
1.	The grounds of invalidity that Google	This calls for Singular to speculate as to
	intends to present at trial are not ones that	what evidence Google "intends to present
	were raised or reasonably could have been	at trial." See also 35 U.S.C. § 311(b).
	raised in a petition for <i>inter partes</i> review.	Singular objects to the extent this
		statement is directed to matters of law, not
		fact. Therefore, denied.
2.	An invalidity ground Google intends to	Id.
	present at trial will be that a prior-art	
	computing system referred to as 'GRAPE-	
	3' invalidates Singular's asserted patent	
	claims as anticipated and/or obvious	
	because the system was 'known or used	
	. in this country' under Section 102(a), in	
	'public use in this country' under	
	Section 102(b), and/or had been 'made in	
	this country by another inventor who had	
	not abandoned, suppressed, or concealed	
	[it]' under Section 102(g)(2).	

	Google's Statement of Fact	Singular's Response
3.	Google could not have advanced in a	Denied. See also 35 U.S.C. § 311(b).
	petition for <i>inter partes</i> review an	Singular objects to the extent this
	invalidity ground based on the GRAPE-3	statement is directed to matters of law, not
	system being "known or used in this	fact.
	country" under Section 102(a), in "public	
	use in this country" under Section	
	102(b), and/or having been "made in this	
	country by another inventor who had not	
	abandoned, suppressed, or concealed [it]"	
	under Section 102(g)(2).	
4	The evidence Google may rely on the	This calls for Singular to speculate as to
	prove invalidity includes the following:	what evidence Google "may rely on."
	The Okamura 1992 and 1993 articles	Singular objects to the extent this
	describing the various elements of the	statement is directed to matters of law, not
	GRAPE-3 system; the Makino 2003 and	fact. Therefore, denied.
	Makino 2005 articles that provide	
	background regarding GRAPE systems in	
	general, including GRAPE-3; the	
	testimony of Google expert John	
	Gustafson regarding his having seen a	
	GRAPE-3 at the 1992 International	
	Conference for High Performance	
	Computing, Networking, Storage and	
	Analysis (also known as "Supercomputing	
	'92" or "SC1992") which was held in	
	Minneapolis, Minnesota, USA, and	
	regarding the number of execution units	
	performing at least the operation of	
	multiplication on 32-bit floating point	
	formats that were present in the types of	
	host computers used with the GRAPE-3.	
5.	An invalidity ground Google intends to	This calls for Singular to speculate as to
	present at trial will be that a prior-art	what evidence Google "intends to present
	computing system referred to as 'CNAPS'	at trial". Singular objects to the extent this
	invalidates Singular's asserted patent	statement is directed to matters of law, not
	claims as anticipated and/or obvious	fact. Therefore, denied.
	because the system was 'known or used	
	. in this country' under Section 102(a), in	
	'public use in this country' under	
	Section 102(b), and/or had been 'made in	
	this country by another inventor who had	
	not abandoned, suppressed, or concealed	
	[it]' under Section 102(g)(2).	

	Google's Statement of Fact	Singular's Response
6.	Google could not have advanced in a	Denied. See also 35 U.S.C. § 311(b).
	petition for <i>inter partes</i> review an	Singular objects to the extent this
	invalidity ground based on the CNAPS	statement is directed to matters of law, not
	system being "known or used in this	fact.
	country" under Section 102(a), in "public	
	use in this country" under Section	
	102(b), and/or having been "made in this	
	country by another inventor who had not	
	abandoned, suppressed, or concealed [it]"	
	under Section 102(g)(2).	
7.	The evidence Google may rely on the	This calls for Singular to speculate as to
	prove invalidity includes the materials	what evidence Google "may rely on."
	produced in response to a third-party	Singular objects to the extent this
	subpoena to Dr. Dan Hammerstrom, the	statement is directed to matters of law, not
	founder and Chief Technology Officer of	fact. Therefore, denied.
	Adaptive Solutions, who designed the	
	CNAPS chip.	
8.	An invalidity ground Google intends to	This calls for Singular to speculate as to
	present at trial will be that a prior-art	what evidence Google "intends to present
	computing system referred to as	at trial." Singular objects to the extent this
	'VFLOAT' invalidates Singular's asserted	statement is directed to matters of law, not
	patent claims as anticipated and/or	fact. Therefore, denied.
	obvious because the system was 'known	
	or used in this country' under Section	
	102(a), in 'public use in this country'	
	under Section 102(b), and/or had been	
	'made in this country by another inventor	
	who had not abandoned, suppressed, or	
9.	concealed [it]' under Section 102(g)(2). Google could not have advanced in a	Denied. See also 35 U.S.C. § 311(b).
9.	petition for <i>inter partes</i> review an	Singular objects to the extent this
	invalidity ground based on the VFLOAT	statement is directed to matters of law, not
	system being "known or used in this	fact.
	country" under Section 102(a), in "public	ract.
	use in this country" under Section	
	102(b), and/or having been "made in this	
	country by another inventor who had not	
	abandoned, suppressed, or concealed [it]"	
	under Section 102(g)(2).	

	Google's Statement of Fact	Singular's Response
10.	The evidence Google may rely on the	This calls for Singular to speculate as to
	prove invalidity includes the following:	what evidence Google "may rely on."
	The 2002-era VHDL source code for	Singular objects to the extent this
	VFLOAT; public, oral presentations by	statement is directed to matters of law, not
	Dr. Leeser and her graduate students	fact. Therefore, denied.
	regarding VFLOAT and its use on FPGA	
	hardware, which show that the system was	
	in public use, publicly known, and not	
	abandoned, suppressed, or concealed; the	
	percipient testimony of Dr. Leeser, based	
	on her recollection and corroborated by	
	both non-public and public documents,	
	regarding the development, use, and	
	public disclosures of and relating to	
	VFLOAT; non-public details regarding	
	the workstation Dr. Leeser and her team in	
	the RCL used in connection with	
	VFLOAT that are material to proving the	
	system meets or satisfies certain claim	
	limitations; and the written thesis of one	
	of Dr. Leeser's graduate students, Pavle	
	Belanovie, which corroborates certain	
	aspects of Dr. Leeser's testimony.	

Dated: December 16, 2022 Respectfully submitted,

/s/ Paul J. Hayes

Paul J. Hayes (BBO #227000) Matthew D. Vella (BBO #660171) Kevin Gannon (BBO #640931) Daniel McGonagle (BBO #690084) Brian Seeve (BBO #670455)

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ATTORNEYS FOR THE PLAINTIFF

CERTIFICATE OF SERVICE

I certify that on December 16, 2022, all counsel of record who have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system.

/s/ Paul J. Hayes